Red5 Series

Red5-EDGE-ROOM

Description

The Red5-EDGE-ROOM is a fully programmable native BACnet building controller. As a primary integration engine of the Red5 system, the Red5-EDGE-ROOM contains memory storage and external communication ports, as well as the control logic for the expansion modules. The Red5-EDGE-ROOM can support up to 4 expansion modules.

The Red5-EDGE-ROOM supports multiple communication methods, including BACnet/IP, BACnet over Ethernet, BACnet MS/TP, and Delta LINKnet.

Application

The Red5 system is a complete solution that combines HVAC, access control and lighting control in a modular system. It combines multiple protocols and I/O points in one unit.

The Red5 system improves room control, avoids duplicate devices and offers a satisfying occupant experience at a lower energy cost.

The Red5-EDGE-ROOM single room controller is ideal for cost-sensitive applications where core features and single serial port connectivity are required.

Features

▶ Fully programmable

▶ BACnet/IP, BACnet over Ethernet and BACnet MS/TP communication ports

▶ Dual Ethernet ports

▶ Modular, expandable I/O. Modular design provides flexibility, ease of service and reduces cost of future upgrades.

▶ Fault detection and diagnostics

▶ Firmware upgrade and database load/save over the network

▶ LED indicators for device status, NET and Ethernet ports

▶ USB expansion ports

▶ DIN rail mountable (EN 50022-35x7.5)

Specifications

BACnet Device Profile
BACnet Building Controller (B-BC)

Device Addressing
Software addressed

Connectors
Removable screw-type terminal connectors

Wiring Class
Class 2 / SELV

Power
24 VDC, 2 W typical (7 W max)
24 VDC, 100 W max output fully loaded

Power Out
75 W max

Technology
Arm® Cortex®-A8
32-bit 600 MHz RISC CPU
256 MB DDR3L RAM
4 GB eMMC flash memory
Real-time clock
Supercapacitor power backup for RTC and CPU

Communication Ports
2 Ethernet (10/100-Base T)
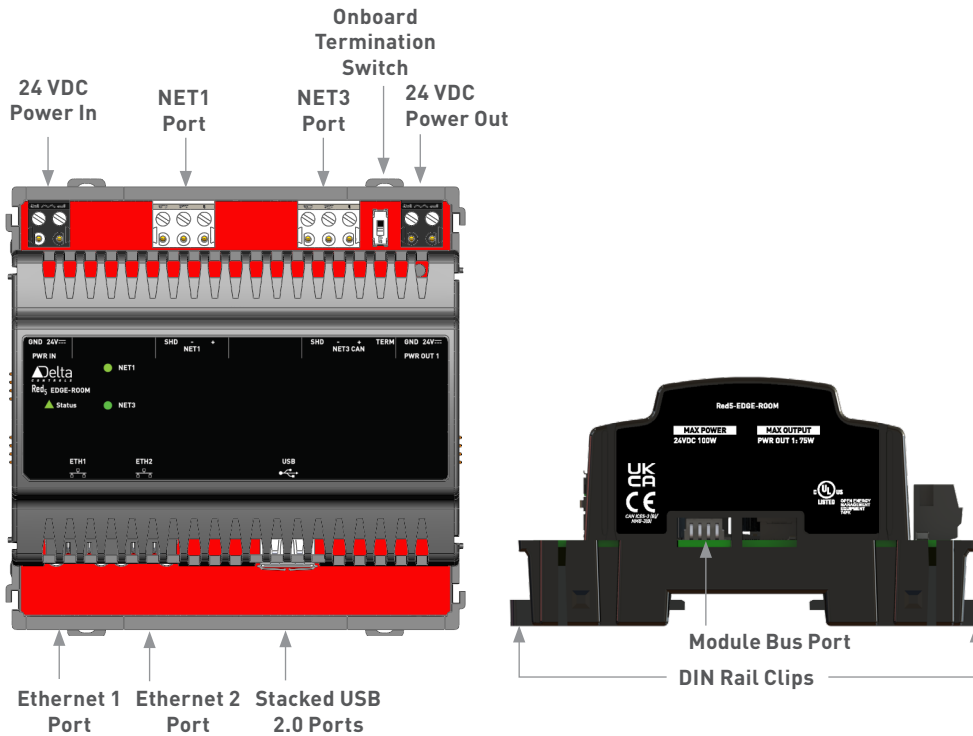
BACnet/IP, BACnet over Ethernet, BACnet/SC

1 RS-485 port supporting up to 4 devices with the following protocols:
    BACnet MS/TP up to 76800 bps
    Delta LINKnet up to 76800 bps
    Modbus RTU up to 115200 bps

1 CAN bus port supporting up to 2 O3-HUB devices

2 USB 2.0 ports

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24 VDC Power In | **NET1 Port** | **NET3 Port** | **Onboard Termination Switch** | **24 VDC Power Out**

Ethernet 1 Port | **Ethernet 2 Port** | **Stacked USB 2.0 Ports**

Module Bus Port
DIN Rail Clips

Specifications (Continued)

Ambient Rating
−30°C to 55°C (−22°F to 131°F)
10% to 95% RH (non-condensing)

Dimensions
108 × 111 × 58 mm
(4.25 × 4.37 × 2.28 in.)

Weight
193 g (0.425 lb)

Enclosure Protection Rating
IP20

Compliance
CE
FCC

Listings
C-UL Listed
UL 916 Listed

Updated September 2023

Order the Red5-EDGE-ROOM with one or more modules or hubs:

Base Unit

Red5-EDGE-ROOM	Base unit: 2 network ports, 2 Ethernet ports, 1 power output, Modbus RTU

Modules and Hubs

Red5-MODULE-4F4xP	I/O module: 4 universal I/O, 4 FET binary outputs
Red5-MODULE-8xP	I/O module: 8 universal I/O
Red5-MODULE-1DOOR	Access module, single door support
Red5-MODULE-DALI	DALI lighting module: DALI interface, 100 mA power output
Red5-MODULE-PoE	Power over Ethernet module (IEEE 802.3at)
Red5-MODULE-SMI	SMI module for motorized blinds: SMI interface, 30 mA power output
O3-HUB	Sensor hub (temp, hum, light, motion, Bluetooth, LED ring, microphone, speaker)
O3-HUB-En868	O3-HUB with EnOcean 868 MHz
O3-HUB-En902	O3-HUB with EnOcean 902 MHz

Subject to change without notice.

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Power Supplies

DRC-24V30W1AZ	Chrome Line Voltage DC power supply 24 V 30 W Class A EMC
DRC-24V60W1AZ	Chrome Line Voltage DC power supply 24 V 60 W Class A EMC
DRC-24V100W1AZ	Chrome Line Voltage DC power supply 24 V 100 W Class A EMC
DRS-24V30W1NZ	Sync Line Voltage DC power supply 24 V 30 W Class B EMC
DRS-24V50W1NZ	Sync Line Voltage DC power supply 24 V 50 W Class B EMC
DRS-24V100W1NZ	Sync Line Voltage DC power supply 24 V 100 W Class B EMC